SEP 1 2 201

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### Figure 1A

	agagagagagateeetteeeetteggegaggaggaaggaa	$f^{*}$
51	agagateatogoagottotootoogacoatttgaotgogactgtgattacaacacagt tgatootacgaaaaagaggtaatygatactggogogaattogotggogtooggacotgat	
	M D T G G X S L A S G P D	13
181	ggtgtgaagaggaaagtttgstasttotatgaccotgaygtoggcaattactactattgc	2.2
241	G V K R K V C Y F Y D P E V G N Y Y Y G caaggteateccatgaagcecategeategeategeatgaccatgecetectegeteactac	3 3
- 4 L	O G H P M K P H R I R M T H A L L A H Y	5.3
301	ggtotoottoagoatatgoaggttotoaagooottoootgooogogaacgtgatototgo	
	G L L Q H M Q V L K P F P A R E R D L C	7.3
352	cycttecacgqcgacgactatgtetettttetecgeageattacccctgaaacccagcaa RFHADDYVSFLRSITPETQQ	93
421	gatcagattegedaacttaagegetteaatgttggtgaagactgteeegtetttgaegge	
	DQIRQLKRFNVGEDCPVFDG	113
491	ctttattccttttgccagacctatgctggaggatctgttggttg	133
5.11	L Y S F C 'Q T Y A G G S V G G S V K L N cacggcototoggatattgccatcaactgggctggtgtctccatcacgctaagaagtgc	133
J - 1	HGLCDIAINWAGGLHHAKKC	153
601	gaggeetetggettetgttæegteaatgatategtettagetateetagageteettaag	
	E A S G F C Y V N D I V L A I L E L L K dagdatgaggggtgttotttatgtogatattgatatccaccacggggatggagtggag	173
201	O H E R V L Y V D I D I H H G D G V E E	193
721	qcattttatgctactgacagggttatgactgtctcgtttcataaatttggtgattacttt	
	AFYAT DRVMT VSFHKFG DYF	213
781	cccggtacaggtcacattcaggatataggttatggtagcggaaagtactattctctcaat p G T G H I Q D I G Y G S G K Y Y S L N	233
841	gtaccactggatgatggaatcgatgatgagagctatcatctgttattcaagcccatcatg	
	V P L D D G I D D E S Y H L L F K P I M	253
901	gggaaagttatggaaatttteegaeeaggggetgtggtattgeaatgtggtgetgaetee G K V M E I F R P G A V V L Q C G A D S	273
961	G K V M E I F R P G A V V L Q C G A D S ctatctggggatcggttaggttgcttcaatctttcaatcaa	2/3
	LSGDRLGCFNLSIKGHAECV	293
1021	aaatttatgagategtteaatgtteeceetactgetettgggtggttggttacactate	2 3 2
1001	K F M R S F N V P L L L L G G G Y T I cgcaatgttgcccgttgctggtgctacgagactggagttgcacttggagttgaagttgaa	313
LUCI	R N V A R C W C Y E T G V A L G V E V E	3 3 3
1141	gacaagatgccggagcatgaatattatgaatactttggtccagactatacacttcacgtt	
	D K M P E H E Y Y E Y F G P D Y T L H V	353
1 4. U L	gotocaagtaacatggaaaataagaattotogtoagatgattgaagagattogcaatgac APSNMENKNSRQMLEEIRND	373
1261	cttctccacaatctctctaagcttcagcatgctccaagtgtaccatttcaggaaagacca	
	LLHNLSKLQHAPSVPFQERP	393
1321	retgatacagagaetecegaggttgatgaagaecaagaagatggggataaaagatgggat	413
1391	coggattcagacatggatgttgatgatgaccgtaaacctataccaagcagagtaaaaaaga	
	PDSDMDVDDDRKPIPSRVKR	433
1441	gaagetgttgaaccagatacaaaggacaaggatggactgaaaggaattatggagegtgga	453
- 5 - 1	EAVEPDTKDKDGLKGIMERG	453
	K G C E V E V D E S G S T K V T G V N P	473
1551	gtgggggtggaggaagcaagtgtgaaaatggaagaggaagaacaaaca	
	V G V E E A S V K M E E E G T N K G G A	493
-0-1	gagnaggogtttootootaaaacataagactoggagottobaatttottgotaottttto - E Q A F P P K T +	502
	tgtstatsaaatgttystagttaagtttstyggAgttgttyttgttytaagcactcototg	
1741	tittägaggattyäyeaeggatatgtatttast tyttyeatgtetgaatgatgatatgat	
1801	atgacaa	





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### Figure 1B

	gtgcccacaactcctagtaatgactttctcaggcattgttgacacaaattttgctctgag	
	taaaacttgggaatagagagactctgagtgagagagattctgagtgag	
121	atggaggcagacgaaagcggcatctctctgccgtcgggacccgacggacg	20
131	gtcagttacttctacgagccgacgatcggagactactactacggtcaaggccacccgatg V S Y F Y E P T I G D Y Y Y G Q G H P M	40
241	aagcctcaccggatccgtatggctcatagcctaatcattcactatcacctccaccgtcgc	<i>c</i> 0
	K P H R I R M A H S L I I H Y H L H R R	60
301	ttagaaatcagtcgccctagcctcgctgacgcctccgatatcggccgattccattcgccg L E I S R P S L A D A S D I G R F H S P	80
361	gagtatgttgacttcctcgcttccgctgcaatctatgggcgatccttccgctgca	00
207	EYVDFLASVSPESMGDPSAA	100
421	cgaaacctaaggcgattcaatgtcggtgaggattgtcctgtcttcgacggactttttgat	
	RNLRRFNVGEDCPVFDGLFD	120
431	ttttgccgtgcttccgccggaggttctattggtgctgccgtcaaattaaacagacag	
	F C R A S A G G S I G A A V K L N R Q D	140
541	gctgatatcgctatcaattggggcggtgggcttcaccatgctaagaaaagcgaggcttct	
	A D I A I N W G G G L H H A K K S E A S	160
601	gggttttgctatgtaaacgacatcgtgctagggattctggagttgctcaagatgtttaag	1.00
	G F C Y V N D I V L G I L E L L K M F K	180
661	cgggttctctacatagatattgatgtccaccatggagatggagtggaagaagcgttttac R V L Y I D T D V H H G D G V E E A F Y	200
7.0.1		200
/21	accactgatagagttatgactgtttctttccacaaatttggggactttttcccaggaact T T D R V M T V S F H K F G D F F P G T	220
701	TTDRVMTVSFHKFGDFFPGT ggtcacataagagatgttggcgctgaaaaagggaaatactatgctctaaatgttccacta	
/01	G H I R D V G A E K G K Y Y A L N V P L	240
841	aacgatggtatggacgatgaaagtttccgcagcttgtttagacctcttatccagaaggtt	
011	N D G M D D E S F R S L F R P L I Q K V	260
901	atggaagtgtatcagccagaggcagttgttcttcagtgtggtgctgactccttaagtggt	
	MEVYQPEAVVLQCGADSLSG	280
961	gatcggttgggttgcttcaacttalcagtcaagggtcacgctgattgccttcggttctta	
	DRLGCFNLSVKGHADCLRFL	300
1021	$agatettac a acgtteete teatggtgttgggtggtgaagggtat {\tt actattegaa} atgtt$	
	RSYNVPLMVLGGEGYTIRNV	320
1081	gcccgttgctggtgttatgagactgcagttgctgttggagtagagccggacaacaaactc	2.40
	ARCWCYETAVAVGVEPDNKL	340
1021	ccttacaatgagtattttgagtatttcggcccagattatacgcttcatgtcgacccaagt PYNEYFEYFGPDYTLHVDPS	360
1 7 0 1	PYNEYFEYFGPDYTLHVDPS cctatggagaatttaaacacgcccaaagatatggagaggataaggaacacgttgctggaa	200
1201	PMENLNTPKDMERIRNTLLE	380
1261	caactttcgggactaatacacgcacctagcgtccagtttcagcacacaccaccagtcaat	3 0
1201	Q L S G L I H A P S V Q F Q H T P P V N	400
1321	cgagttttggacgagccggaagatgacatggagacaagaccaaaacctcgcatctggagt	
1021	R V L D E P E D D M E T R P K P R I W S	420
1381	ggaactgcgacttatgaatcagacagtgacgatgatgataaacctcttcatggttactca	
	G T A T Y E S D S D D D K P L H G Y S	440
1441	tgtcgtggtggcgcaactacggacagggactctaccggtgaagatgaaatggatgacgat	
	CRGGATTDRDSTGEDEMDDD	460
1501	aacccagagccagacgtgaatcctccatcgtcttaaaccagcttgatggtttggtgtctc	
	NPEPDVNPPSS *	471
	ttttgccatatgataatgtcggcagatttaagaaacaagttaggggaatgaat	
	tgatgttttttcagcaaccttttgagttctgtgaaaacgctgcattgattagaacagtga	
	caactgactagtattttggcccaagttagaasatcagaatatgtgsaaaaaaaaaa	
1/41	aaaaaaaagggcggccgctctagaggatccaagcttacgtacg	

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# Figure 2A

1	cace	1001	- ~ ~	ora.	aaa	atc	ctc	tat	ttt	tet	caa	cat	tga	SEC	tta	gcc	atg	gag	tta	tgg	
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181	cate	***a	aad	art t	aaa	aac	cad	aac	tto	att	cto	rgga	act	cta	tcg	act	gag	aac	arc	cct	
101	Н	V	K	V	G	N	Q	N	L	V	L	G	T	L	S	T.	E	N	Ţ	Đ	64
241	cago		rtc	tat	gat	tta	ata	itito	gac	aac	ggad	ttt	gag	ctt	tct	cac	act	tgg	gga	aaa	
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301	ggaa	acti	att	tac	Ett	att	gga	tac	aaa	aact	ccc	aac	att	gag	cca	caa	ggc	tat	tat	gag	
301	G G	S	y. ∵	Y	F	v	Ğ	Y	К	Т	P	N	I	Ε	₽	Q	G	Y	S	Ε	104
361	gaag	~ 2.2.	aaa	caa	даа	gag	idaa	gaa	artit	idat	act	ago	aat	gct	gcc	aag	gat	gta	gat	aaa	
201	yaa; E	gaa. E	gug E	gaa E	E	Ξ	E	E	17	P	A	G	N	A	A	K	A	V	Α	K	124
421	cca	 	~~+	aad	~~ <del>-</del>	aca	паа	arc	aac	acca	aget	att	gat	gat	gaa	gag	gat	gag	tct	gat	
427		uay.	y	w	ם	Δ.	r .g.m.c	-9-: 37	ĸ	P	A	·	<u>D</u>	D	E	E	D	Ξ	S	D	144
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481	tat	gac	gga	atg	gac	yad	iyat	.ya:		_ya:	-yy (	-ya-	ian -	c. c.	. A c. A	E.	- <del></del> -	ੁ ਜ਼	P	Т	164
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541	cct	aag	aag	cct	gca	tca	ago	caaç	gaaq	gaga	agci	aat	gaa	lac u	.acc		. aaa	.y.c.	מטט	.g ~g	184
	P	K	K	Ъ	Α	S	S	K	K	R	A	N	Ε	11	- 12	P	· ·			·	104
601	tca	gca	aag	aag	gcg	aaa	gta	igca	agtt	tact	ccct	caç	gaaa	laca	igat	gag	aag	aag	add	ggg	201
	S	А	K	K	Α	K	V	Α	V	T	P	Q	K	T.	D	Ε	K	F.	K	G	204
661	gga	aaq	act	aca	aac	cac	ago	cca	aaag	gtag	ggc	cagt	caa	igto	tca	tgt	ggt	tca	tgc	aag	
	G	К	A	A	N	Q	S	P	K	S	A	S	Q	V	S	C	G	S	C	K	224
721	aad	act	tta	aac	tca	ggo	gaat	gca	act	tgag	gtc	tcad	caac	aaç	gcc	aag	cac	gat	get	gcc	
	K	·π	F,	N	S	G	N	Ā.	L	E	S	Н	N	F.	A	ĸ	Н	Α	Α	A	244
781	2 2 C	ra raa	aat	creat	++0	++==	atta	agac	acti	tate	rati	ttat	ato	gaa	attt	tgo	ctg	rtag	tct	tta	
/ O I	K	*																			245
841	tga	aac	ctt	.cgg	ratt	itto	etta	ata	こただ	teti	ttt	gata	aaca	aaga	agto	tta	atç	aaa	gaç	jagc	
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# Figure 2B

Τ.	gtct	ttag	cttc	taa	aaaa	aaa	acc	taa	caa	cat	ata.	t t c !	E C E C	2 ti U (	2000	Jg 1	CCal	aca	aca	
61	atgg	agtt	ctgg	gga	gtt	gcg.	gtg	aca	cca	aaa	aac	gata	acti	aag	gtga	act(	cat	gaa	gaa	
	M	E F	W	G	V	A	$\nabla$	T	5	K	N		$\Gamma$	К	V	T	Þ	Ξ	E	20
121	gaca	gcct	tgto	cac	att	tat	cag	gat	tca	att	gac	tgca	acaq	gtga	aaa	tate	gga	gaa	tct	
	D	s L	V	H	Ξ.	S	Q	A	S	L	D	C	1,4	V	K	S	G	Ε	S	40
181	gtg	gttt	tgag	rtgt	gact	tgt	tgg	tgg	ggc	taa	act	tgt'	tati	gg	aac	act	tta	aca	agac	2
	V	V L	S	V	Ţ	V	G	G	A	K	L	Λ	I	G	Ţ	L	S	Q	D	60
241	aagt	taca	tcag	att	agc:	ttt	gāt	ttg	gtt	ttt	gat	aaa	gag	t t t	gag	ctt	tca	cac	agc	
	K	F P	Q	I	S	F	D	L	V	F	D	K	Ξ	F	E	سڏ	S	н	S	8.0
301	ggta	ccaa	agca	iaat	gtto	cat	ttc	att	ggc	tac	aaa	tcc	ccc	aac.	atc	gag	cag	gat	gac	
	G	т к	Α	N	$\Lambda$	Н	F	I	G	Y	К	S	P	$\mathbf{N}$	I	Ε	Q	Ð	D	100
361	ttca	ctag	ttag	gat	gate	gag	gat	gtt	act	gaa	gct	gtt	cat	gct	cct	ācc	cct	act	gct	
	F	T S	S	D	D	E	D	V	P	Ε	A	V	P	A	P	A	Р	Т	A	120
421	gtta	ctgc	caac	gga	aat	get	gga	gca	gct	gtt	gtc	aag	gct	gac	aca.	aag	cca	aag	gcc	
	V	T A	N	G	N	A	G	A	A	V	V	K	A	D	$\mathbf{T}$	K	₽	K	A	140
481	aaac	ctgc	cgaa	igtg	aag	cct	gca	gaa	gag	aag	cct	gaa	tca	gac	gag	gaa	gat	gag	tct	
	K	P A	E	V	K	5	A	Ε	Ε	K	5	Ε	S	<u>D</u>	_E_	E.		<u>E</u>	S	160
541	gat	gatg	aaga	itga	gtc	tga	aça	igga	tga	tga	ata	tga	gaa	agg	aat	gga	tgt	tga	tgaa	1
		D E		E		E	_E_		<u>D</u>			E			<u>M</u> _		V			180
601	gatg	actc	agat	gat	gac	gag	gag	gag	gat	tct	gag	gat	gaa	gaa	gag	gag	gag	act	cct	
																	_			
	D	D S	D	D	D_	E	Ξ	E	D	S	Ε	<u>D</u>	Ξ	E	<u>E</u>	_ <u>E</u> _	_E	1	P	200
661		D S	D tgaç				Ξ	E	D	S	E aat	<u>D</u> gaa	E tct	E gta	E tcc	<u>E</u> aaa	<u>E</u> aca	T.	gtc	
	<u>D</u> aaga K	D S agcc K P	tgaç E	jcca P	atc. I	aac N	E aag K	E jaag K	D agg R	S cca P	E aat N	<u>D</u> gaa E	E tct S	E gta V	E tcc S	E aaa K	<u>E</u> aca T	T CCC P	gtc V	200
	<u>D</u> aaga	D S agcc K P	tgaç E	jcca P jgca	atc. I aaa	aac N cca	aag K gca	E jaag K igca	D agg R gca	S cca P cca	E aat N gct	<u>D</u> gaa E tot	E tct S act	E gta V cct	E tcc S cag	E aaa K aag	<u>E</u> aca T aca	T ccc P gag	gtc V aag	220
721	D aaga K tctg S	D S agec K P gaaa G K	tgag E gaag K	gcca P ggca A	atc. I aaa K	aac N cca P	E aag K gca	E gaag K igca A	agg R gca A	S cca P cca P	E aat N gct A	gaa E tct S	E tct s act	E gta V cct P	E tcc S cag Q	E aaa K aag K	<u>E</u> aca T aca T	T CCC P gag E	gtc V aag K	
721	D aaga K tctg	D S agec K P gaaa G K	tgag E gaag K	gcca P ggca A	atc I aaa K acc	aac N cca P gcc	aag K gca A	E gaag K igca A	agg R gca A	S cca p cca p	aat N gct A	gaa E tot S aag	E tct S act T aag	E gta V cct P ggt	E tcc S cag Q gga	E aaa K aag K aag	<u>E</u> aca T aca T tct	T CCC P gag E .cct	gtc V aag K gtg	220 240
721 781	D aaga K tctg S aaga K	D S agcc K P gaaa G K aagg K G	tgag E gaag K agga G	JCCA P JGCA A ACAC	atc I aaa K acc	aac N cca P gcc	E aag K gca A aca	E gaag K Igca A Icca	D agg R gca A .cac	S cca p cca p cca	E aat N gct A gct	gaa E tot S aag	E tot S act T aag	Egta V CCt P ggt G	E tcc S cag Q gga G	E aaa K aag K aag	E aca T aca T tct	T CCC P gag E CCt	gtc V aag K gtg V	220
721 781	D aaga K tctg S aaga	D S agcc K P gaaa G K aagg K G	tgag E gaag K agga G	JCCA P JGCA A ACAC	atc. I aaa K acc T	aac N cca P gcc A	E aag K gca A aca T	E Kaag Kagca A Icca P	D agg R gca A .cac H	S cca p cca p cca	E aat N gct A gct A	gaa E tot S aag K	E tot act T aag K	gta V cct pgt Ggt	E S Cag Q gga G	E aaa K aag K aag K	Eaca Taca Tct Saac	CCC P Gag E CCt P Gaag	gtc V aag K gtg V aag	220 240 260
721 781 841	aaga K totg S aaga K aatg	D S agcc K P gaaa G K aagg K G ctaa A N	tgaq E gaaq K agga G ccaq	Jeca P Jgca A Acac H Jagc	atc. I aaa K acc. T ecc	aac N cca P gcc A aag	E aag Kagca Aaca T	gaag K Agca A Cca P Igga	agg R gca A .cac H .ggt	S CCa P CCa P CCa Q	E aat N got A got toa	gaa E tot S aag K too	E tct s act T aag K ggt	gta gta cct ggt ggt ggt	E tcc S cag Q gga G aac	E aaa K aag K aag K	E aca T aca tct s aac	T CCC P Gag E CCt P aag	gtc V aag K gtg V aag K	220 240
721 781 841	aaga K totg S aaga K	D S agcc K P gaaa G K aagg K G ctaa A N	tgaq E gaaq K agga G ccaq	Jeca P Jgca A Acac H Jagc	atc. I aaa K acc. T ecc	aac N cca gcc A aag K	E aag	E K K A A CCA P Igga G	D agg R gca A cac H ggt	S cca P cca P caa Q	E aat N got A got A toa	gaa E tot S aag K too S	E tct act aag K ggt G	E gta V cct ggt G ggt	E tcc S cag gga G aac N	E aaa K aag K aag N aac	E aca T aca T tct s aac N	T CCC P Gag E CCt P Gaag K	gtc V aag K gtg V aag K	220 240 260 280
721 781 841 901	D aaga K totg S aaga K aatg N	D S agec K p gaaa G K aagg K G ctaa A N tcaa F N	tgag E gaag K agga Ccag Ctcag	JCCA P JGCA ACAC H JAGC S AGGC	atc aaa K acc T ccc P aaa	aac N cca P gcc A aag K caa	aag Kaca Aaca Tot Sitt	E yaag K Augca Pugga Gggt	D agg R gca A .cac H .ggt G	S cca p cca p caa Q tcc	aat Ngot Agot Atoa toa	gaa E tot S aag too S aac	E tot act aag K ggt G aag	gta gta cct ggt ggt ggt ggt	tcc Scag Qga GGac Ntct	E aaa K aag aag K aac N	E aca T ct S acc N acg	T CCC P gag E CCt P aag K ggC	gtc V aag K gtg V aag K aag	220 240 260
721 781 841 901	aaga K totg S aaga K aatg	D S agec K p gaaa G K aagg K G ctaa A N tcaa F N	tgag E gaag K agga Ccag Ctcag	JCCA P JGCA ACAC H JAGC S AGGC	atc aaa K acc T ccc P aaa	aac N cca P gcc A aag K caa	aag Kaca Aaca Tot Sitt	E yaag K Augca Pugga Gggt	D agg R gca A .cac H .ggt G	S cca p cca p caa Q tcc	aat Ngot Agot Atoa toa	gaa E tot S aag too S aac	E tot act aag K ggt G aag	gta gta cct ggt ggt ggt ggt	tcc Scag Qga GGac Ntct	E aaa K aag aag K aac N	E aca T ct S acc N acg	T CCC P gag E CCt P aag K ggC	gtc V aag K gtg V aag K aag	220 240 260 280 300
721 781 841 901 961	D aaga K tctg S aaga K aatg N ccat P ggaa	D S agcc K P gaaa G K aagg K G ctaa A N tcaa F N aggg K G	tgag E gaag K agga G ccag Ctcag taga	pca pgca Acac H gagc S aggc agct	atc aaa K acc T ccc P aaa K taa	aac N CCA GCC AAG AAG CAA	E aag Kaag A aca Tot Sttt	E yaag K Igga P Igga G Igga Igga	agg R GCAC H Ggt GG GG	S CCA P CCA P CAA CAA Q CCA	aat Ngot Agot Kaac Naga	gaa E tot saag toc Saac Nggt	E tot act aag ggt aag ttt	E gta ccpgG gG gG gg gg	E tcc sag gga aac tct ttt	aaa Kaag Aag Aag Aac Naac Ncg	Eaca Taca TCS aac	CCC P gag E CCt P aag (ggC aga	gtc Vaag Kgtg Vaag Kaag Kaag	220 240 260 280
721 781 841 901 961	D aaga K tctg S aaga K aatg N ccat P ggaa G	D S agcc K P gaaa G K aagg K G ctaa A N tcaa F N aggg K G	tgag E gaag K agga C ccag Ctca taga	Jeca P Jgca Acac H Jagc S Aggc Aggc Aggc A	atc. aaa Kacc CCC Paaa Kaa Kaa	aac NCa PCC AAG AAG Caa Cga	E aag Kagaa A Gaca Tot Stort	E gaag K A acca P gga G ggt	Dagg Rgca Cac Hggt Ggt Itca	S CCa P CCa P CCa Caa Caa Caa Caa	aat Ngot Agot toa toa aga	gaa E tot S aag too S aac N ggt	ECS act act act ttt	E gta c P g G g G g G g G G G G G G G G G G G G	E tcc cag gga aac tct tag	Eaaa Aag aag aag aan aan teg	Eaca Taca Taca Naga Agt	CCC P Gag E CCt P aag GGG GGG	gtc V aag K gtg V aag K aag K tga	220 240 260 280 300
721 781 841 901 961	D aaga K tctg S aaga K aatg N ccat P ggaa G tgaa	D S agec K P gaaa G K aagg K G ctaa A N ccaa F N laggg K G	tgag gaag gaag K agga Ccag Ctca taga R cttg	Jeca P Jgca Acac H Jagco Aggco Aggco Agco Agco	atc. aaa  Kacc ccc Paaa  Kaa  taa	aac N cca P gcc A A g Caa Caa Q gga tgg	E aag K gca A aca T tot S ttt	E raag Kaag Kagca Acca P rgga G ggt	Dagg R G G G G G G G G G G G G G G G G G G G	S cca P cca	E aatt N got A got toa S Saac N aga a toa act	gaa E tot S aag toc S aac N ggt	E totat a Tag GG ag tt tta	E gta c Pgg ggg ggg ggg tagt	ECC Sagga Gac Ntct tagaat	E aaaa K aaag K aaag K aaag K aaag K aaag K aaag K aaac N tog tata	E aca T ca T ca T ca T ca T ca T ca A ca A	CCC P gag E cct P aag K ggc G aga	gtc V aag K gtg V aag K aag K atga	220 240 260 280 300
721 781 841 901 961	D aaga K tctg S aaga K aatg N ccat P ggaa G	D S agec K P gaaa G K aagg K G ctaa A N ccaa F N laggg K G	tgag gaag gaag K agga Ccag Ctca taga R cttg	Jeca P Jgca Acac H Jagco Aggco Aggco Agco Agco	atc. aaa  Kacc ccc Paaa  Kaa  taa	aac N cca P gcc A A g Caa Caa Q gga tgg	E aag K gca A aca T tot S ttt	E raag Kaag Kagca Acca P rgga G ggt	Dagg R G G G G G G G G G G G G G G G G G G G	S cca P cca	E aatt N got A got toa S Saac N aga a toa act	gaa E tot S aag toc S aac N ggt	E totat a Tag GG ag tt tta	E gta c Pgg ggg ggg ggg tagt	ECC Sagga Gac Ntct tagaat	E aaaa K aaag K aaag K aaag K aaag K aaag K aaag K aaac N caac C C C C C C C C C C C C C C C C C	E aca T ca T ca T ca T ca T ca T ca A ca A	CCC P gag E CCt P P P P P P P P P P P P P P P P P P	gtc V aag K gtg V aag K aag K atga	220 240 260 280 300

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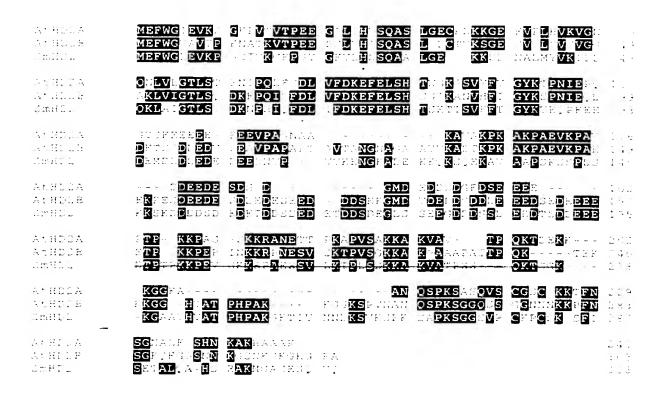
TECH CENTER 1600/2900

# Figure 3

Atesira Atesire Umerir Bros	MEADES I S	LPSVGPDG	EKREVOYFYE	PT:GDYYYGO PDVGNYYYGO	GHPMKPHRIR GHPMKPHRIR GHPMKPHRIR GHPMKPHRIR	477
ATEPÖ:A ALREL.B OMFLO! BPO:	MAHSLITHYH LE MTHSLLARYG LI	RRLEISRP N.MQVYRP		FHADEY CFL FHSPEY DFL FHAEEYINFL FHOEYIDFL	RSITPETOOD ASV <mark>SPESMGD</mark> RSVTPETOOD SPVTPDNLEM	95 97 103 96
AtBECTA Atepola omartal EPOI	PSAARNLERF NY OI - RLLKRF NY	VGEDCPVFD VGEECPVLD	GLYSFCOTYA GLPDFCEASA GLYSFCOTYA GLYEYCSISG	GGSVGGEVKL GGSIGAAVKL GASVGGAVKF GGSMEGAARL	NHGL CDIAIN NRODADIAIN NHGH - DIAIN NEGK CDVAVN	143 147 148 144
AtPPDSA AtRPDSB ImPPDS RPDS	NOGGLHHAKK SI	EASGFCYVN EASGFCYVN	DIVLAILELL DIVLGILELL DIVLAILELL DIVLGI <mark>T</mark> ELL	KCHERVLYVD KMFFRVLYID KHHCRVLYVD RYHFRVLYID	IDIHHGDGVE IDVHHGDGVE IDIHHGDGVE IDVHHGDGVE	193 197 198 194
AtPESSA AtPESSE CmFPD: RPDS	EAFYTTDRVM TY	VSFHKFGDF VSFHKFGDY	FPGTGHIZDI FPGTGHIRDV FPGTGDIRDI PPGTGELRDI	GYGSGKYYSL GAEKGKYYAL GHSKGKYYSL GYGAGKNYAV	NVPLDDGIDD NVPLDDGIDD NVPLDDGIDD NVPLEDGIDD	043 047 048 244
AtREDIA AtREIB Emppoi EPDI	ESFRSLFRPL I	KVMEVYQP	GAVVLQCGAD EAVVLQCGAD GAVVLQCGAD SAVVLQCGGD	SLSGDRLGCF SLSGDRLGCF SLSGDRLGCF SLSGDRLGCF	NLSIKGHAEC NLSIKGHAEC NLSIKGHAEC NLSMEGHANC	293 297 298 294
Atrebia Atrebia CmpPC: RPD:	LRFERSYNVP LIVE /MRSFNVP L	LLLGGGGYT MVLGG <mark>E</mark> GYT LLLGGGGYT MV <mark>V</mark> GGGGYT	IRNVARCWCY IRNVARCWCY IRNVARCWCY BRNVARTWC	ETGVALGVEV ETAVANGVEP ETGVALGEP ETGLENNVVL	DE DE PYNEYY DE DE PYNEYY DE DE PYNEYY	13 15 15 15 15 15 15 15 15 15 15 15 15 15
AtRPD3A AtRPD3B Cm8903 BPD3	EYFGPDYTLH V	APSNMENKN PSNMENKN APSNMENKN RPSNMFNVN	SPOMLEEIRN TPKOMERIRN TROCLOSIRS TPEYLDKUMT	DLLHNLSKLO TLLHNLSGLI KLSKLR NIFANLENTK	HAPSV <mark>P</mark> FQER HAPSVOFQHT HAPSV <mark>H</mark> FOER YAPSVOLNHT	393 397 394 394
Atrpola Atrpola Cmrpol Apol		DCEDGDFRW DCCDFDERH	DPDSDMDVDD EPEDDME DPDSDMEVDD DAEDLGDVEE	TR	KPIPSRVKRE KPRIWSG SILGIMIKRE	435 421 444 438
AIRPI 'A A'RDDIB UMRFUB RPUB	AVEPORECED S CATYESDESD S PSEMARAUCO S		SE	SIMMAPIADA		493
ACFPDIA ACFPDIA DMFFDI FPDI	VKMEREOTNK 3 Unreprovne - VKMEPESSTK L TRASCIVART L	PSS (goda <mark>a</mark> adh <b>k</b> )				500 481 514 400



## Figure 4

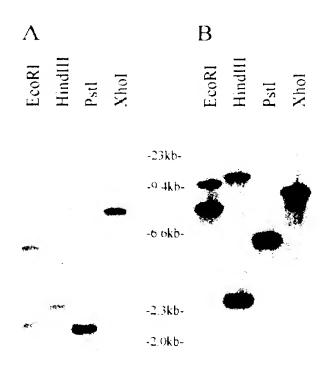




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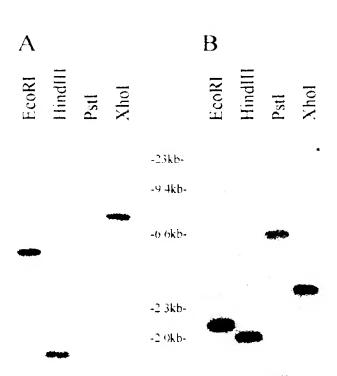
TECH CENTER 1600 2900

### FIGURE 5





## FIGURE 6





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#### FIGURE 7

W F L S
AtRPD3A
Actin



SEP 1 2 200%

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#### FIGURE 8

AtHD2B L S

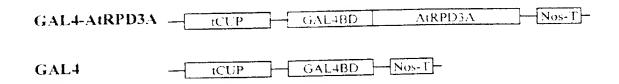
Actin



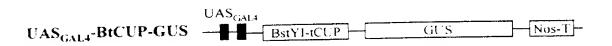
FIGURE 9

 $\mathbf{A}$ 

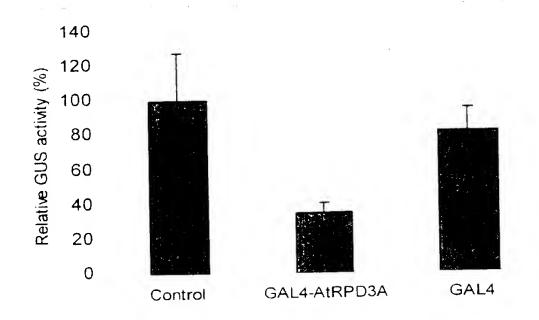
#### **Effector Plasmids**

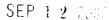


#### Reporter Plasmid



B



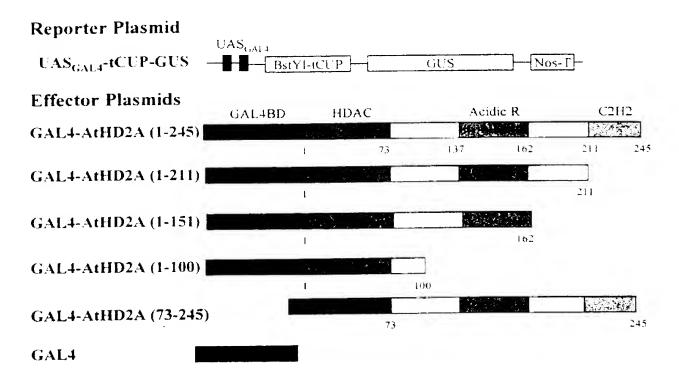




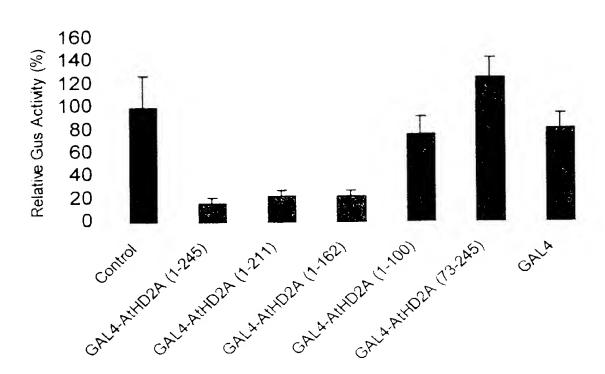
TECH CENTER 1600 2900

#### A

#### FIGURE 10



B



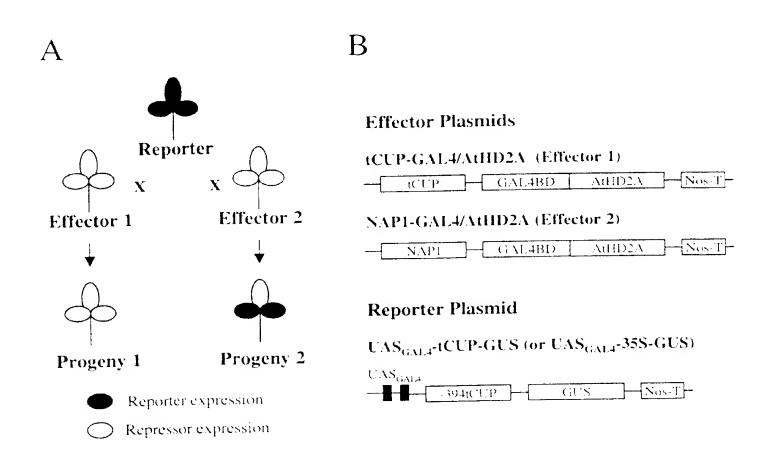


Figure 17

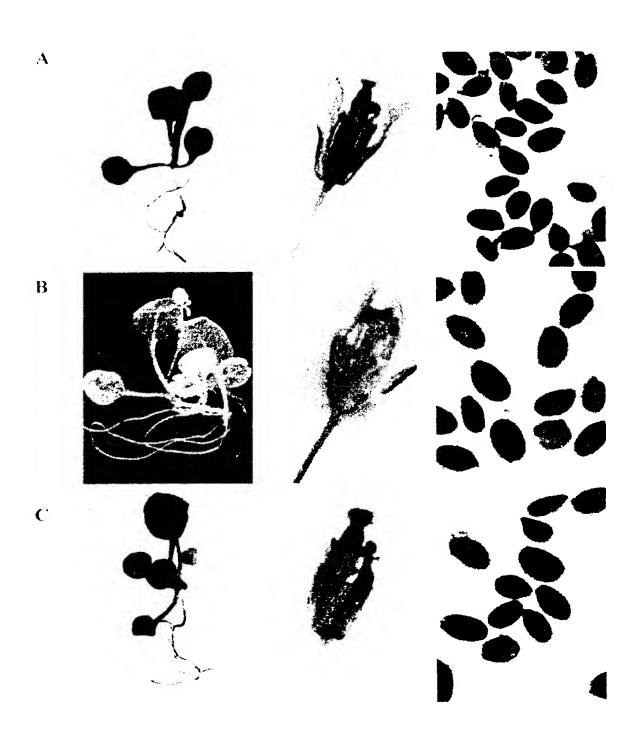


Figure 18



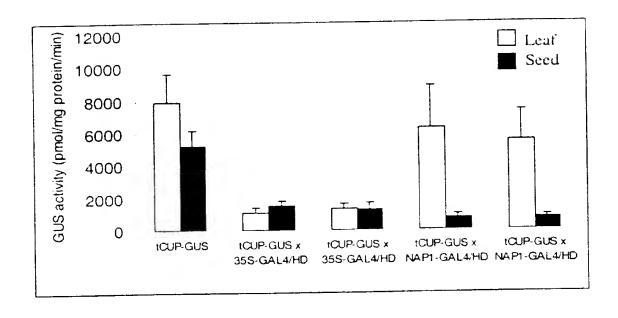


Figure 19(a)

Tissue Florogenic Transient Expression Assay of Leaves

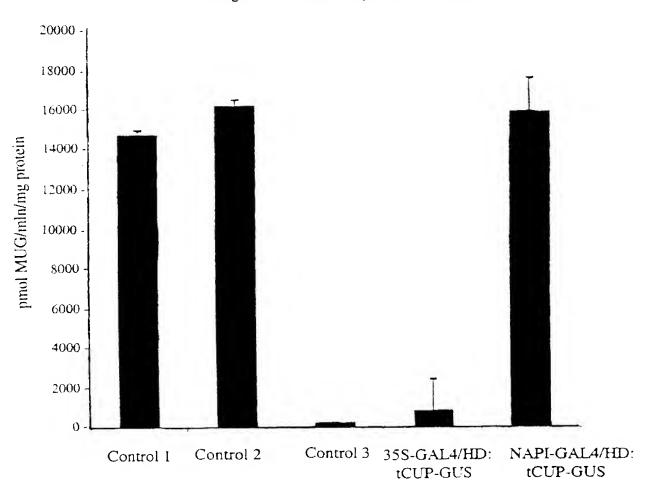


Figure 19(b)



Tissue Florogenic Transient Expression Assay of Seeds

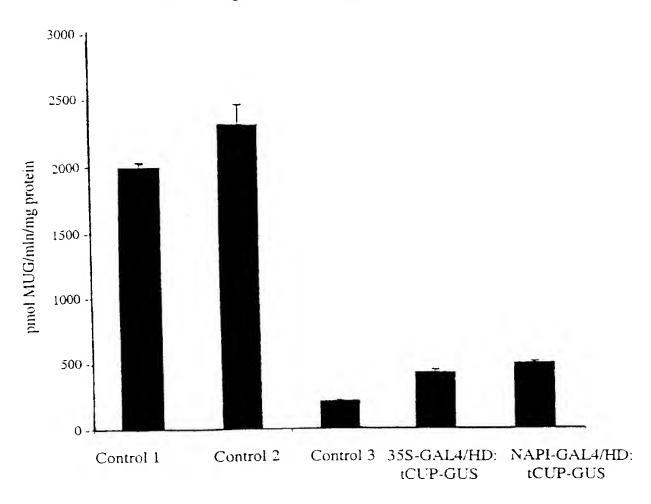
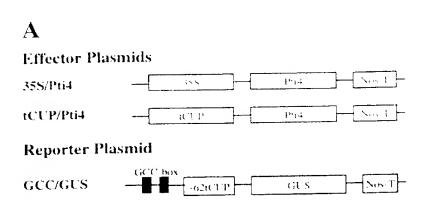


Figure 19(c)







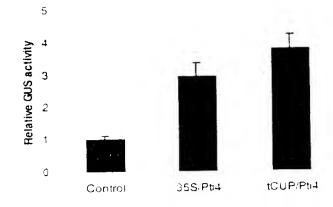


Figure 20



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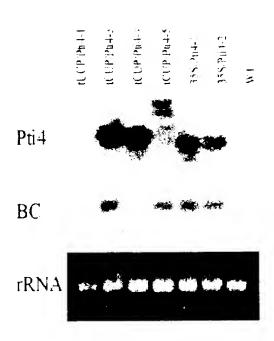


Figure 21



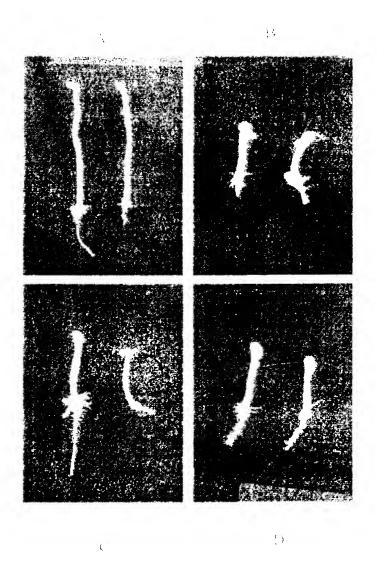


Figure 23



SEP 1 2 2002

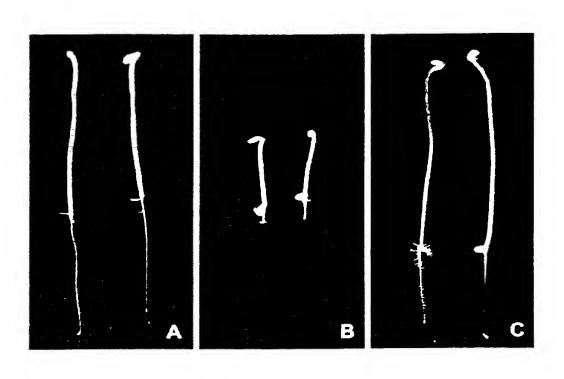


Figure 24